



## **CREATING AN EMERGENCY REPAIR DISK (ERD)**

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**WINDOWS® 2000**

# Creating an Emergency Repair Disk (ERD) for Windows® 2000

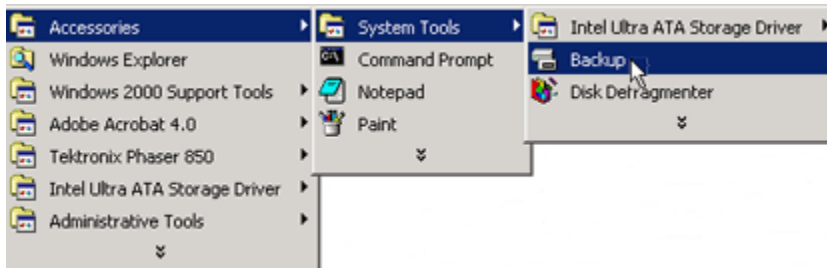
An Emergency Repair Disk (ERD) contains information about your computer's setup and the files that have been installed. Though a Microsoft® Windows® 2000 based computer rarely crashes, it is possible. Be prepared! If you create an ERD after installation of the operating system, Windows 2000 can use the information from the ERD to reinstall or repair the missing or damaged files.

**Note:** The creation of the ERD is identical on the Windows 2000 Professional, Server, and Advanced Server platforms.

**Important:** Create a new ERD whenever you make substantial system changes to your computer.

Here's how you can create an ERD:

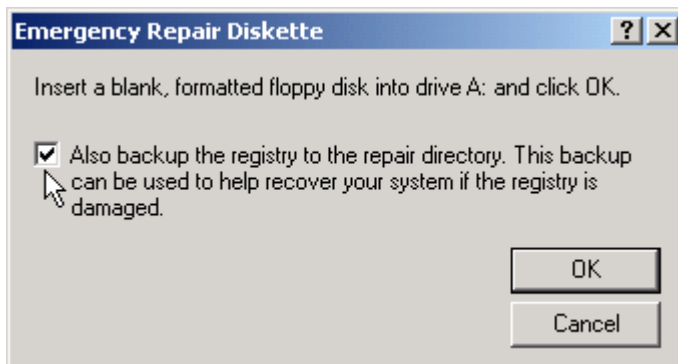
1. Click **Start, Programs, Accessories, System Tools, and Backup.**



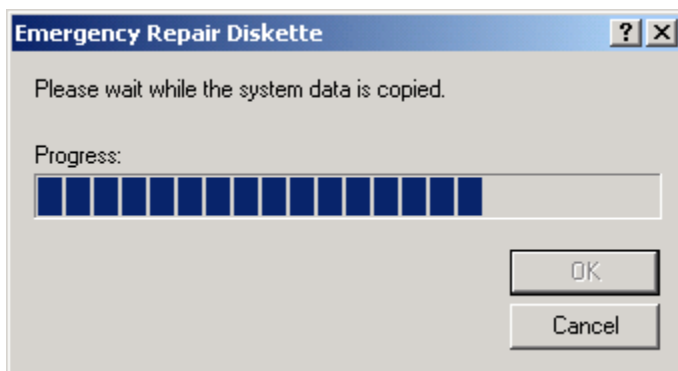
2. On the **Welcome** tab of the **Backup** window, click the **Emergency Repair Disk** button.



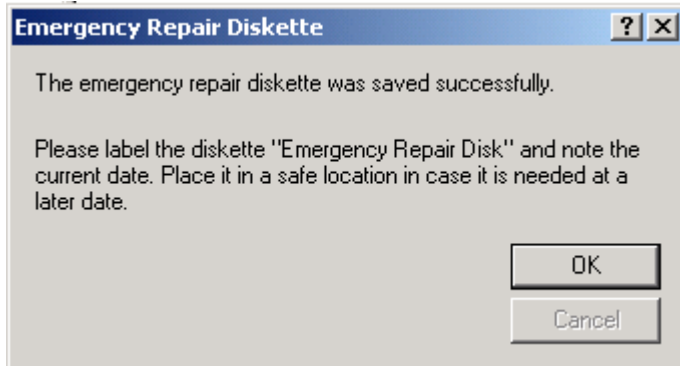
3. Select the check box to back up the registry.



4. Place a blank, formatted floppy disk into the drive, and click **OK**.



5. When the ERD has been created, remove the diskette from the drive; label it with the date, time, and computer name; and store it in a safe place.




6. Close the backup program.


### Using the Emergency Repair Disk

If your system does not start, and using safe mode or the Recovery Console is not an option, use of the Emergency Repair Disk (ERD) is inevitable. The best possible advice we can give you is to review your options, create a plan and follow it, but don't lose your patience!

Let's take a look at your options should a system failure occur and the Recovery Console is not an option.

- You can start the system using the Windows 2000 Setup CD if your system permits booting to a CD-ROM.
- or
- You can start the system using the Windows 2000 Setup floppy disks, and then use the Emergency Repair Process to restore core system files.

 **Reminder!** Make sure you [create an Emergency Repair Disk](#) while your computer is functioning well so that you are prepared in the event you need to repair system files. The ERD allows you to make only basic system repairs, such as to the system files, boot sector, and startup environment. The ERD does not back up data, programs, or the registry and is not a replacement for regular system backups.

 Unlike the Windows NT 4.0 ERD, the Windows 2000 ERD **does not contain a copy of the registry files**. The backup registry files are in the folder %SystemRoot%\Repair folder. If you have installed Windows 2000 on your "C" drive, your backup registry files are at C:\WINNT\repair\RegBack. However, unless you have backed up these files recently, the files in this folder are from the original installation of Windows 2000. In any event, should there be a problem, they can be used to return your computer to a usable state.

If your registry files become corrupted or are accidentally erased, use the files in this folder to repair your registry without performing a full restore of the system state data. Although this method of recovery is recommended for advanced users only, it can be accomplished by using the Recovery Console commands. Recreate the ERD after each service pack, system date, or updated driver is installed. Be sure to make a copy of your current ERD and store it in a secure location


When you create an Emergency Repair Disk, it will contain only these files:

Autoexec.nt	A copy of %SystemRoot%\System32\Autoexec.nt, which is used to initialize the MS-DOS environment.
Config.nt	A copy of %SystemRoot%\System32\Config.nt, which is used to initialize the MS-DOS environment.
Setup.log	A log of which files were installed files, and Cyclic Redundancy Check (CRC) information for use during the Emergency Repair Process. This file has the read-only, system, and hidden attributes, and it is not visible unless you have configured My Computer to show all files.

### **The Emergency Recovery Process**

Presuming that you have created an ERD, you can use it to help repair system files after starting the computer using either the Windows 2000 Setup CD or the Windows 2000 Setup floppy disks. However, either the Windows 2000 Setup CD or your slipstreamed/integrated installation point (server share, slipstreamed CD or second hard drive) will be required for replacing any damaged files.

Your Emergency Repair Disk **must include current configuration information**. Make sure that you have an ERD for each installation of Windows 2000 on your computer, and never use an ERD from another computer.

 **Note:** You cannot repair all disk problems by using the ERD!

The following outlines the recovery process presuming that you cannot boot to your Windows 2000 CD-ROM, or that your installation point is on a CD-ROM disk or second hard drive and you will be using your ERD and four (4) Windows 2000 Setup Floppy Disks.

### **The Phases of the Recovery Process**

1. Insert the first disk of your setup floppy disks and restart the computer. This will begin the setup procedure and the examination of your hardware.

2. Next, you will be asked to insert your Setup Disk #2 and touch enter. This will cause the setup program to load the Hardware Abstraction Layer along with other necessary files such as hardware support drivers, USB and SCSI support, the partition manager and the like. When this is finished, you will be asked for Setup Disk #3.
3. Setup Disk #3 completes the loading of your hardware driver support and scans the system bus looking for your SCSI bus (if it exists). You'll then be asked for Setup Disk #4.
4. Setup Disk #4 finishes the process of loading your drivers by loading the appropriate CD-ROM driver, loading the FAT file system and then starting Windows 2000.
5. The next screen you see will provide you will a group of choices:



- 6.
7. Select "**R**" to begin the actual repair process.

**When you start the Emergency Repair Process, the following information is displayed on the screen:**

This operation will attempt to repair your Windows 2000 system. Depending on the type of damage present, this operation might or might not be successful. If the system is not successfully repaired, restart Setup and choose the option to recover a destroyed system or system disk.

### Select the following repair option:

- **Fast Repair.** To perform all repair options, press F.

If you select **Fast Repair**, and if the folder %SystemRoot%\Repair is accessible, the registry files are checked. If the folder %SystemRoot%\Repair is inaccessible (for example, due to file system corruption) the registry files are not checked.

- **Fast Repair.** This is the easier option to use, and does not require user input. If you choose this option, the Emergency Recovery Process attempts to repair problems related to system files, the boot sector on your system disk, and your startup environment (if your computer has more than one operating system installed). This option also checks and repairs the registry files by loading and unloading each registry key.

**Note:** If a key is not successfully checked, it is automatically copied from the repair directory to the folder %SystemRoot%\System32\Config.

If you choose Fast Repair, all repair options are performed.

### Manual Repair allows you to select from the following three options:

**Inspect Startup Environment** Inspect Startup Environment verifies that the Windows 2000 files in the system partition are correct. If any of the files that are needed to start Windows 2000 are missing or corrupted, Repair replaces them from the Windows 2000 Setup CD or your installation point, whichever the case may be. These include NTLDR and Ntdetect.com, and if the Boot.ini file is missing, it is recreated.

**Verify Windows 2000 System Files** Verify Windows 2000 System Files uses a checksum to verify that each installed file is good and that it matches the file that was installed from the Windows 2000 Setup CD. If the recovery process determines that a file on the disk does not match what was installed, it displays a message that identifies the file and asks if you want to replace it. The Emergency Repair Process also verifies that startup files, such as NTLDR and Ntoskrnl.exe, are present and valid.

**Inspect Boot Sector** Inspect Boot Sector verifies that the boot sector on the system partition still references NTLDR. The Emergency Repair Process can only replace the boot sector for the system partition on the first hard disk. The Emergency Repair Process can also repair the boot sector for the system partition on the startup disk.

### If you choose Fast Repair, all repair options are performed.

If the Emergency Repair Process Does Not Fix Your System...

If you have performed the Emergency Repair Process and the computer still does not operate normally, you can use the Windows 2000 Setup CD to perform an in-place

upgrade over the existing installation. This is a last resort before reinstalling the operating system. Note that the time required to complete the following procedure is equal to the time it takes to reinstall the operating system.

**To perform an in-place upgrade of Windows 2000**

1. Insert your Windows 2000 Setup CD into the drive.
2. Press **Enter** to install a copy of Windows 2000.
3. When you are prompted to repair the existing Windows 2000 installation, press R.

Windows 2000 Setup performs an in-place upgrade of your existing installation. However, you might lose some customized settings of your system files.